United States Senate

Republican Policy Committee

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# Surprise: Air and Water Are Cleaner Under Bush Administration

## *Executive Summary*

- Both air and water quality have improved in recent years, contradicting the charges by administration critics alleging President Bush is a poor steward of our air and water.

- During President Bush's tenure, air pollutants monitored by the Environmental Protection Agency – nitrogen dioxide, ozone, sulfur dioxide, particulate matter, carbon monoxide, and lead – all have fallen. Water quality violations in the nation's rivers and streams also have fallen. These and other trends are the continuation of decades of improvements in the environment.

- Specifically: for the years 2000 to 2002 (the last year for which data are available), concentrations of the following air pollutants fell: carbon monoxide (by 15.5 percent), lead (by 31.5 percent), nitrogen dioxide (by 5 percent), sulfur dioxide (by 11 percent), and each of the two types of regulated particulate matter (by 4 percent and 6.5 percent). With the exception of the year 2000, the year 2003 had the lowest ozone levels since measuring began in 1980. The number of water quality violations in U.S. rivers and streams for the following pollutants also fell: fecal coliform bacteria (by 23 percent), dissolved oxygen (by 12 percent), total phosphorus (by 28 percent), and cadmium (by 35 percent).

- President Bush's environmental record is not what his critics claim it to be. Despite some disingenuous charges that his administration has "rolled back" environmental protections, the President has worked to reform regulations that are environmentally counterproductive, and has implemented some new first-ever environmental regulations.

- President Bush's most important environmental accomplishment to date has been the enactment of the Healthy Forests Restoration Act of 2003. Other environmental efforts include: New Source Review reforms; new standards for snowmobile emissions; and proposed reductions for mercury emissions.

## Introduction

President Bush's environmental record has been the subject of intense criticism from the environmental left. Leading environmental groups accuse the Bush Administration of taking actions that harm the environment and of "rolling back" environmental regulations.

One of the oldest and most well-respected conservation groups in the country, the League of Conservation Voters, claims that "George W. Bush is well on his way to compiling the worst environmental record in the history of our nation."[1] The group accuses the administration of having "a clear bias toward the interests of the oil industry, the utility industry, and other corporate contributors at the expense of the health and safety of the public" and charges that "the public interest in clean air and safe drinking water comes last."[2] Senator and presidential candidate John Kerry has parroted the League's rhetoric. In response to a reporter's question about President Bush's environmental record he responded, "Abysmal. Worst record in modern history."[3]

An objective look at the data shows that on President Bush's watch, the environment actually has improved. It also shows that charges lodged by the League and other groups are misleading, if not false.

## President Bush's Environmental Record

The data, detailed below, show that the environment has experienced continuous and sustained improvement over the last several decades. Indeed, the country experienced impressive improvement in air quality long before the passage of the 1970 Clean Air Act.[4] That improvement continues to this day.

Two of the leading indicators of environmental health are air quality and water quality. The three charts that follow show recent trends in the pollutants that make up these indicators. As can be seen, air and water pollutants continue to decrease, just as they had before President Bush took office. This, of course, translates into better air and water quality.

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[1]League of Conservation Voters, *2003 Presidential Report Card*, January 2003.

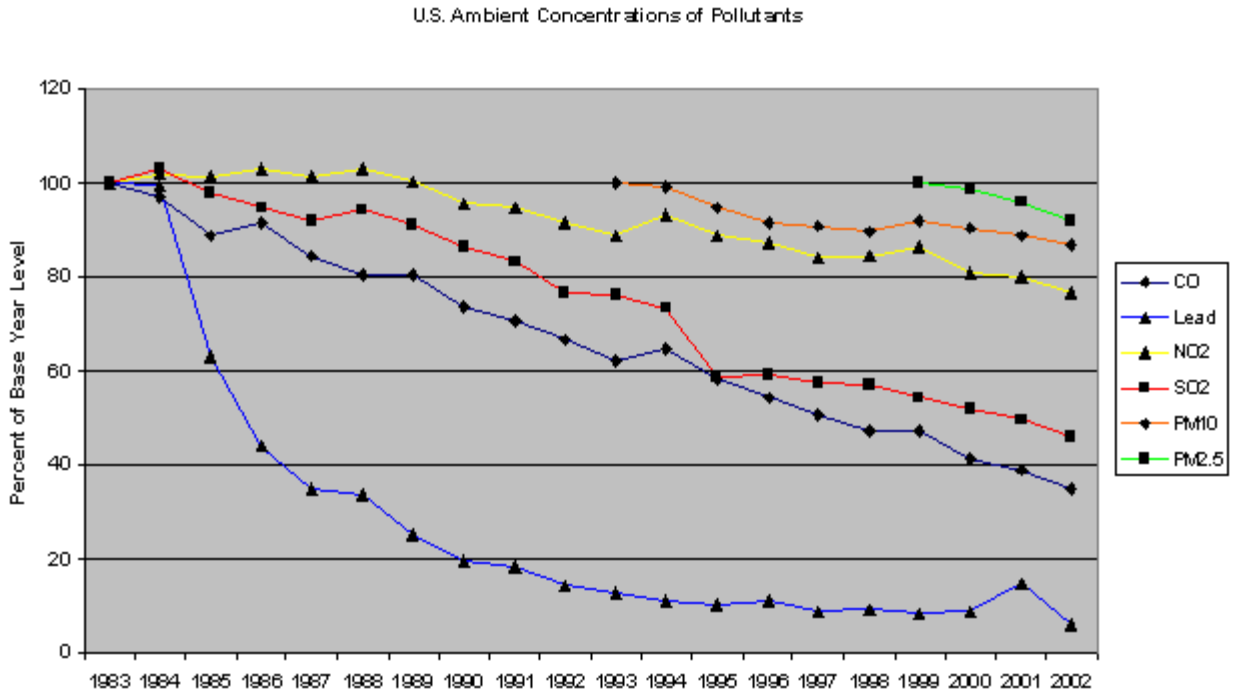
[2]League of Conservation Voters, January 2003.

[3]*Grist Magazine*, "Kerry's Jubilee: A Grist interview with Democratic presidential contender John Kerry," September 23, 2003.

[4]Indur Goklany, *Clearing the Air*, (Washington, D.C.: The Cato Institute, 1999), pp. 33. Paul R. Portney, ed. *Public Policies for Environmental Protection* (Washington, D.C.: Resources for the Future, 1990), pp. 50-51. Robert W. Crandall, *Controlling Industrial Pollution: The Economics and Politics of Clean Air* (Washington, D.C.: Brookings Institution, 1983), pp. 7.

***Air Quality Data***

The two charts below show the ambient air quality for the six principal air pollutants that are regulated by the Environmental Protection Agency (EPA).[5] These pollutants are nitrogen dioxide (NO2), ozone (O3), sulfur dioxide (SO2), particulate matter (PM), carbon monoxide (CO), and lead.




As can be seen, there has been a long-term decrease in ambient concentrations of carbon monoxide, lead, nitrogen oxide, sulfur dioxide and particulate matter. For the years 2000 to 2002 – which include the year before President Bush took office and the two years that follow[6] – concentrations of each of these pollutants have also fallen. For carbon monoxide, concentrations have fallen by 15.5 percent, for lead 31.5 percent, for nitrogen dioxide 5 percent, and for sulfur dioxide 11 percent. Concentrations of the two classifications of regulated particulate matter, PM10 and PM2.5 – which refer to the diameter of the particles – have also fallen. For PM10, ambient concentrations have fallen by nearly 4 percent and for PM2.5 about 6.5 percent.

Ozone concentrations have also fallen over the long-term. As can be seen on the following chart, however, this overall downward trend is characterized by some variation. Indeed, ozone concentrations rose from 2000 to 2002, but then fell again in 2003.[7]

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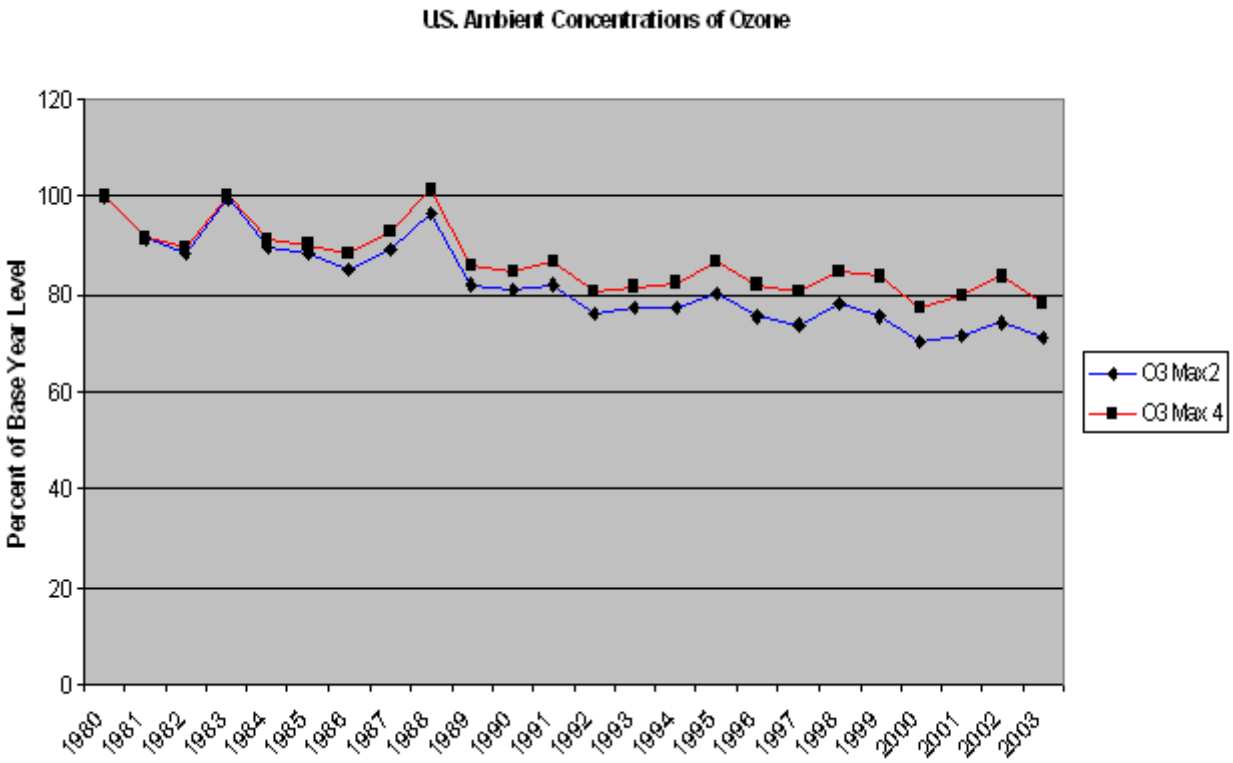
[5]U.S. EPA, *Latest Findings on National Air Quality: 2002 Status and Trends*, August 2003.

[6]The data for years beyond 2002 are not yet available.

[7]U.S. EPA, *The Ozone Report: Measuring Progress Through 2003*, April 2004.




What accounts for the significant variation in ozone concentrations? Ozone is not emitted directly; it is formed by the reaction of nitrous oxides and volatile organic compounds to heat and sunlight. Emissions of both of these precursors to ozone can fall while ozone concentrations can increase. Indeed, this is exactly what has happened. As noted in an EPA air quality report, "year-to-year changes in ambient ozone trends are influenced by meteorological conditions, population growth, and changes in emissions levels of ozone precursors." It goes on to note that, "In 2002, meteorological conditions were favorable for relatively high ozone concentrations primarily in the eastern half of the nation." When the EPA adjusted the ozone data to account for meteorological influences, such as ground temperature and wind speed, it found that the adjusted trend was essentially flat for the period 1993 to 2002.[8]

Just as meteorological conditions contributed to higher ozone concentrations from 2000 to 2002, a reverse of those conditions contributed to lower ozone concentrations in 2003. But as the report also explains, "Trends show that VOCs [volatile organic compounds] and NOx [nitrous oxides], the pollutants that contribute to ozone formation, were at their lowest levels since 1970."[9]

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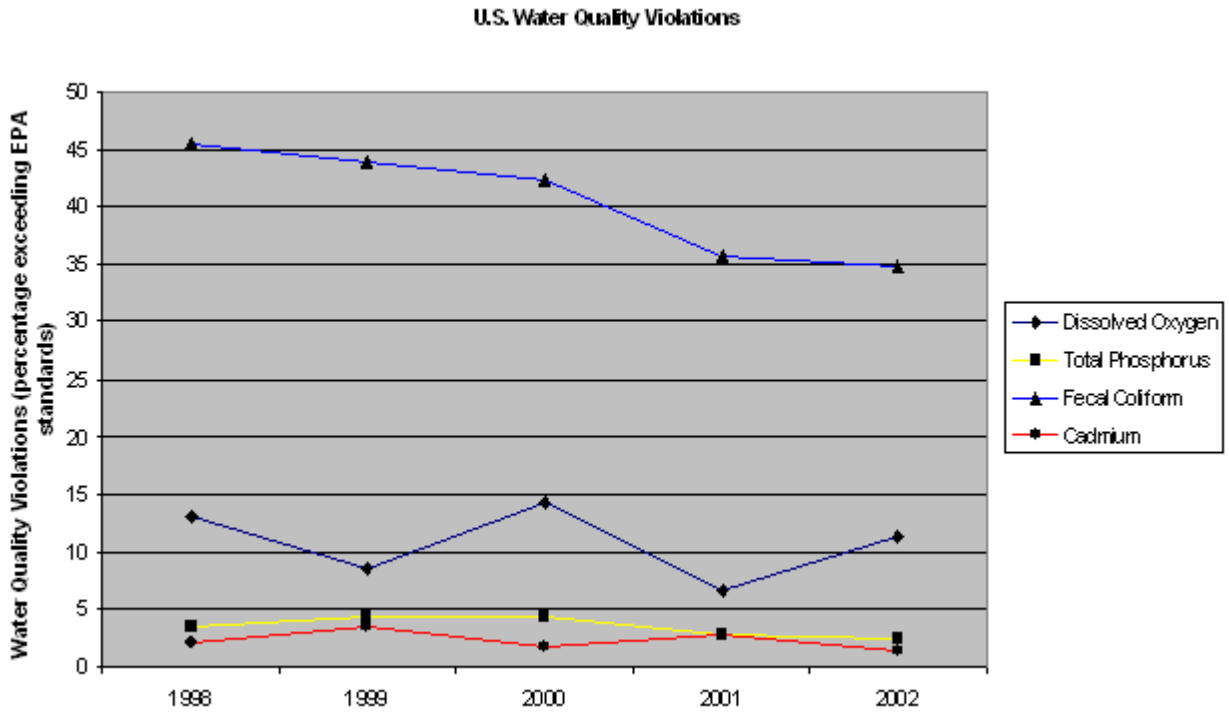
[8]U.S. EPA, August 2003.

[9]U.S. EPA, April 2004.

***Water Quality Data***

The same positive trends are evident in the data on water quality. It must be noted, however, that the only trend data available is U.S. water quality violation rates. Since rivers and streams are discrete units and because of changes in sampling locations over time, it is not possible or even valid to combine all the measurements into a single number to determine overall U.S. water quality trends. By looking at water quality violation rates, however, one can make a general statement about whether water quality is improving or getting worse.

The following chart shows that the percentage of U.S. rivers and streams violating EPA standards for fecal coliform bacteria (which can come from poorly treated sewage or runoff from pastures, feedlots, and cities), dissolved oxygen, phosphorus, and cadmium is declining.[10] These four pollutants are regulated by the EPA. A source of water having low levels of these four pollutants would be considered "clean" water. These measurement are meant to determine ambient water quality in U.S. rivers and streams.




[10]The other substance subject to EPA standards is lead. Its yearly violation rate has been below one percent since 1984, so a trend would not be visible on the chart. The numbers are as follows. In 1998, the violation rate was 0.150 percent, in 1999 0.801 percent, in 2000 0.587 percent, in 2001 0.147 percent, and in 2002 0.159 percent.

For each of these regulated pollutants, water quality violations have fallen. From 1998 to 2002, covering part of the both the Clinton and Bush administrations, water quality violations for fecal coliform bacteria fell 23 percent, for dissolved oxygen 12 percent, for total phosphorus 28 percent, and for cadmium 35 percent.[11]

This evidence on air quality and water quality show that continued steady environmental improvement has continued under the Bush Administration. It is not the contention of this paper that President Bush is wholly responsible for that improvement, any more than President Clinton or any previous president is wholly responsible for the environmental improvements that occurred under their respective watches. But it certainly cannot be argued that the Bush administration is harming air and water quality.

## The Environmental Attack Machine

If air and water quality have continued to improve under this administration, why the shrill accusations about President Bush's "abysmal" environmental record? In determining an answer to this question, it might be useful to consider whether the environmental left is more concerned about protecting the environment – or about protecting environmental regulation. The two aren't necessarily the same. So-called environmental regulations sometimes can be environmentally harmful.

As it turns out, much of what the critics are complaining about are this administration's efforts *to reform environmentally counterproductive regulations*. These efforts are intended to cut red tape and reduce costs – while maintaining or even raising environmental standards. In addition to being subjected to criticism for efforts to reform unduly burdensome regulations, this administration is even attacked when it implements first-ever environmental regulations – such as those for snowmobile emissions.

The following discussion will look at a few examples of where the Bush administration has undertaken environmentally beneficial reforms, as well as introduced new efforts to protect the environment, and how these efforts have been misrepresented and politicized by environmental extremists. Indeed, much of President Bush's environmental efforts have gone further than attempts by the previous administration.

### ***The Clean Air Act Charges***

The Bush administration has been unfairly attacked for its attempts to make more workable the New Source Review (NSR) requirements under the Clean Air Act of 1970. Under this three-decade old rule, all new sources of emissions (new power plants, oil refineries, and other industrial facilities) are subject to stringent air quality regulations that require the installation of expensive pollution control technologies. Older facilities (those built before 1977)

[11]U.S. Geological Survey, national-level data, unpublished, Reston, VA, 2004.

are not subject to the those requirements unless operators expand or substantially upgrade their facilities. The old rule expressly allowed for routine repair and maintenance of older facilities without triggering NSR requirements.

The Clinton administration reinterpreted the NSR rule as having a much stricter definition of "routine," so that what had previously not been sufficient to trigger the NSR requirements now was sufficient. The reinterpretation was applied *retroactively*, and many refineries and power plants were penalized with big fines for approved work done years before. But even before the Clinton reinterpretation, there was a complex process to determine if repairs and maintenance were indeed "routine," thereby deterring companies from maintaining the safety, reliability and efficiency of their facilities.

The detrimental environmental effects of NSR requirements have been well understood by experts for years. As noted by environmental analysts Robert Stavins of Harvard University and Howard Gruenspecht with Resources for the Future, "Not only does New Source Review deter investment in newer, cleaner technologies, it also discourages companies from keeping power plants maintained."[12] In other words, NSR has become environmentally *counterproductive*. Instead of the normal cycle of business where older, dirtier industrial facilities are periodically replaced with newer, cleaner facilities, this regulation has created a situation in which older facilities are kept in operation well past their normal functioning lifetimes. In some industries, such as oil refining, investment in new facilities has dried up. Indeed, no new oil refineries have been built since 1976.

The Bush administration's reforms would do several things to fix this environmental paradox. First, it would allow facility owners to operate under a site-specific emissions cap. Facility owners would be able to make changes to their facilities without obtaining a major NSR permit, as long as their emissions *do not exceed* the plant-wide cap. Since most, if not all, repair and maintenance activities and upgrades lead to fewer rather than more emissions, this allows facility owners to quickly make environmentally beneficial investments.

Second, a facility that undergoes a review process that results in its achieving federal Best Available Control Technology or Lowest Achievable Emission Rate control levels can be classified as "clean." Once declared clean, a facility could undergo additional changes without triggering NSR as long as permitted allowable emissions *do not increase*.

Third, activities determined by the proper permitting authority to result in a *net overall reduction* of air pollutants may go forward without being submitted to a lengthy permitting process. This will remove regulatory disincentives to companies seeking to develop and implement pollution control and prevention approaches.

Fourth, the proposed reform would revise the routine repair, maintenance, and replacement exemption to clarify what constitutes "routine" activities. Under the proposed

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[12] *Boston Globe*, "A Level Field on Pollution At Power Plants," January 26, 2002.

reform, equipment replacement activities are exempted from NSR if a component of a process unit is replaced with an identical or functionally identical component and the cost of replacing the component is no more than 20 percent of the cost of replacing the entire process unit. Equipment replacement that changes the basic design of the process unit or that cause emission limits *to be exceeded* are not exempt.

Finally, the NSR reform proposal would implement a more accurate procedure for determining the impact on future emissions of a new project, so that companies have a better grasp on whether or not a new project would trigger NSR permitting requirements.

It is obvious that the NSR reforms finalized by the Administration would not lead to increased emissions. Yet the *New York Times* incorrectly asserted that the new rule will allow existing facilities to increase emissions. It also claimed that the rule change is "a particularly egregious example" of an environmental rollback "and one that could do the environment great harm."[13] Massachusetts Attorney General Thomas Reilly, who joined in a lawsuit with eight other Democratic Attorneys General against the rule, said, "Today's actions threaten the very quality of the air we breathe.... There is something fundamentally wrong when agencies charged with protecting our public health roll back our environmental laws merely for the convenience of industry."[14]

But no such rollback was contemplated or implemented. In fact, all new sources would still be subject to NSR requirements, and all repairs and upgrades that increase emissions would likewise be subject to NSR requirements.

## ***The Arsenic Charge***

Just before leaving office, the Clinton administration finalized a number of environmental regulations that it had failed to act upon during the previous eight years. One of those so-called midnight regulations set more stringent standards on the amount of arsenic allowed in drinking water from 50 parts per billion (ppb) to 10 ppb. At the time, a National Research Council review stated: "No human studies of sufficient statistical power or scope have examined whether consumption of arsenic in drinking water at the current MCL [the standard at the time] results in the incidence of cancer or noncancer effects."[15] Despite acknowledging the lack of evidence for a new rule, the NRC recommended that the standard be lowered. It did not recommend a specific standard, however.

In light of the dearth of evidence, President Bush wisely postponed implementation of the rule to submit it to further scientific review. Spokespersons for the environmental left

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[13]*New York Times*, "Fouling the Air," August 23, 2003.

[14]*CBSNews.com*, "Suits Threatened Over New EPA Rules," November 22, 2002.

[15]National Research Council, *Arsenic in Drinking Water*, National Academy Press, Washington D.C.: 1999.

immediately accused him of "rolling back" environmental protections, despite the fact that there was no effort by the Administration to roll back the current standard. The *New York Times* editorialized that Bush had retreated on "poisoned drinking water."[16] Meanwhile, the Democratic National Campaign Committee aired an attack ad featuring a young child. None of these accusations mentioned the fact that President Clinton had done nothing to implement a stricter standard during his eight years in office until his departing hours.

Unfortunately, the new scientific review was also carried out by the NRC, which had already recommended lowering the standard despite the lack of evidence that it was necessary. The NRC reiterated its recommendation and this, along with relentless political pressure, induced EPA Administrator Christie Todd Whitman to let the Clinton rule stand.

The costs of the arsenic rule, which will go into effect in January 2006, will hit small rural communities hardest. The EPA estimated that the new rule could cost rural water utility customers up to $300 per year, but Anthony Bennett with the Texas Natural Resource Conservation Commission said that in some cases water bills could go up by as much as $150 per month.[17] In Nebraska, it is estimated that the total cost to 75 small public water systems will reach more than $120 million.[18] In Oklahoma, 29 communities will be hit with a total bill of $40 million.[19] Steven Owens, director of Arizona's Department of Environmental Quality, estimates that the mandate will cost the state between $70 million and $120 million per year.[20]

***The Forest Ecosystem Charge***

Would the environmental left congratulate President Bush for his taking much needed action to protect an ecosystem? No. Instead, he has been attacked for his role in enacting the Healthy Forest Restoration Act of 2003, a true environmental accomplishment. Nothing is more environmentally harmful than catastrophic wildfire, which damages ecosystem diversity, harms air quality, ruins watersheds, destroys endangered species habitat, and diminishes scenic beauty. The nation's forests have been subjected to severe neglect over the last several decades, due in

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[16] *New York Times*, "Environmental Rollbacks," April 8, 2001.

[17] *Corpus Christi Caller-Times*, "New Arsenic Limit Could Be a Struggle For Woodsboro: Drinking water rule may dry up budgets," July 15, 2002.

[18] *Lincoln Journal Star*, "Arsenic and Old Wells: Nebraska towns looking at estimated cost of $120 million to make drinking water safe," May 8, 2004.

[19] *Journal Record Legislative Report*, "Most Water Systems Below Standards, Lawmakers Warned," December 4, 2003.

[20] *Associated Press*, "Chandler's Water Rates May Rise to Fund Work to Lower Arsenic Levels," March 26, 2004.

part to the obstructionist legal tactics of environmentalists to prevent forest restoration projects.[21] As a result, 190 million acres of U.S. forest land has experienced declining health from overgrowth, disease, and insect infestation. These lands are now in danger from catastrophic wildfire.

The Sierra Club characterized this initiative as "concentrated on decreasing public involvement, reducing environmental protection, and increasing access to our National Forests and other federal lands for timber companies."[22] The reality is that the Healthy Forests Restoration Act is employing proven forestry management techniques to enhance forest health and to reduce destructive wildfires.[23]

***Other False Charges***

There are many other instances of extremist attacks on the Bush administration's environmental record, even when it has proposed or implemented entirely new regulations. For example, the Administration has implemented the first-ever snowmobile emissions standards and was attacked for not going far enough, even though the new rule would have the same effect as taking 30 million cars off the road.[24] Moreover, two environmental groups, Environmental Defense and the Bluewater Network, launched legal challenges against the new rule.

The Administration has also proposed the first-ever limits on mercury emissions. The National Resources Defense Council accused the Administration of "environmental rollbacks" – even though no prior standards existed.[25] Regardless of whether one thinks these regulations go too far or not far enough, it is simply not credible to claim that the Bush administration is rolling back environmental protections.

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[21]See Senate Republican Policy Committee, "GAO Confirms That Environmental Groups' Appeals Delay Forest Improvement Projects," September 11, 2003.

[22]Sierra Club, "Debunking the 'Healthy Forests Initiative'," http://www.sierraclub.org/forests/fires/healthyforests_initiative.asp.

[23]U.S. Department of Agriculture, Forest Service, *Science Basis for Changing Forest Structure to Modify Wildfire Behavior and Severity*, April 2004. A Forest Service press release announcing the study noted that it "illustrates the use of hazardous fuel treatments as an effective means to reduce the threat of catastrophic fire to communities. The study also found that these treatments improve and maintain forest health as called for in the President Bush's Healthy Forests Initiative." http://www.fs.fed.us/news/2004/releases/04/fuel-treatments.shtml.

[24]*New York Times*, "Air Pollution Regulations Extended to Snowmobiles," September 14, 2002.

[25]*National Resources Defense Council*, "Bush Announces Rollback of Power Plant Pollution Rules," February 14, 2002.

## Conclusion

The environmental left's criticisms of the Bush Administration's environmental record appear to be based mainly on disagreements over process, and on a desire to protect the eco-regulatory state more than a desire to protect the environment itself. After all, the data on environmental quality show quite clearly that, rather than resulting in an environmental disaster, the Bush administration's tenure has been characterized by cleaner air and cleaner water. The critics fail to acknowledge that it is quite likely that mistakes have been made in formulating past environmental regulations and that reforms might be necessary. It is also quite likely that ever-changing environmental conditions demand new ideas and better approaches than the relatively unchanging command-and-control approaches used in the past.